The decline in vocational course-taking from 1982-1998 is relatively small compared to increases in academic course-taking. The potential trade-off between academic and vocational course-taking seems to have been mitigated by students taking more courses overall and fewer courses in the general curriculum. Further, the decline in vocational concentration is due primarily to declines in the trade and industry and business program areas, areas that roughly correspond to occupations that have experienced below average growth rates since the early 1980s. Health care; technology and communications; food service and hospitality; and child care and education are four vocational programs areas in which a larger proportion of students concentrated in 1998 than they did in 1982. All four programs prepare students for occupations that have experienced above-average growth rates. These findings suggest that changes in vocational course-taking may at least in part reflect responses to labor market trends.
Changes in High School Vocational Coursertaking in a Larger Perspective

Stats in Brief
October 2000
From the 1980s to the mid-1990s, high school vocational coursetaking declined, as academic coursetaking increased (Levesque et al. 2000). Increases in high school graduation requirements (Medrich et al. 1992) and long-term trends for higher skill levels in the labor market (Rosenthal 1995) are two potential factors related to the rise in academic coursetaking. The decline in vocational coursetaking is not as easy to evaluate. First, vocational education includes course offerings ranging from computer programming to welding; the overall decline in vocational coursetaking may not reflect trends within specific vocational program areas. Second, changes in coursetaking occurred during a period in which the labor market underwent pronounced changes that may have affected students' decisions to complete specific vocational courses. This Stats in Brief takes a closer look at vocational coursetaking trends, examining them in light of labor market changes.

Changes in Vocational Coursetaking

While increased academic requirements may have resulted in some students having less time to take vocational courses, students' predominant method for accommodating additional academic credits seems to have been to increase the total number of credits they earn rather than sacrifice vocational courses. In 1998, students earned an average of 18.3 academic Carnegie units, 4.0 more academic credits than students earned on average in 1982 (figure 1). At the same time, students earned 3.5 more total credits in 1998 (25.1 credits) than in 1982 (21.6 credits). In contrast, students earned 0.7 fewer credits in the vocational curriculum in 1998 (4.0 credits) than in 1982 (4.7 credits).

Another way to examine changes in vocational coursetaking is to compare the percentage of high school graduates who follow various curricular paths. This analysis shows that the primary shift in coursetaking between 1982 and 1998 was from general education preparation to a college preparatory curriculum, with a relatively small decline in the percentage of students concentrating in vocational education compared to changes in the other areas. Between 1982 and 1998, the percentage of students who completed a vocational concentration declined from 33.7 to 25.0, or by 8.7 percentage points. Over the same time period, the percentage of students completing a college preparatory curriculum increased from 8.7 to 38.9, or 30.2 percentage points, and the percentage having a general education preparation declined from 58.2 to 42.6, a decline of almost 16 percentage points (not shown in figures).

So while a smaller percentage of students completed a vocational concentration in 1998 than in 1982, the decline is relatively small given other changes in coursetaking. Moreover, most vocational program areas did not experience a decline from 1982 to 1998. The overall decline in the percentage of students completing a vocational concentration was due primarily to declines in the two largest vocational areas—trade and industry and business (figure 2). While the percentage of students concentrating in personal and other services was also smaller in 1998 than in 1982, relatively few students concentrated in this area in either year. In contrast, the percentages of students concentrating in health care, technology and communications; food service and hospitality; and child care and education were higher in 1998 than in 1982, although the percentages of students concentrating in these areas remained comparatively small.
The percentages of students concentrating in agriculture and renewable resources and marketing and distribution were about the same in 1998 as they were in 1982.

Vocational Coursertaking and Occupational Trends

One factor that may influence a student's decision to concentrate in a specific vocational area is labor market demand; students may be more likely to concentrate in vocational areas that prepare them for occupations with increasing job opportunities. Although the labor market influences on vocational enrollment are likely to be complex (e.g., the accuracy of students' perceptions of labor market demand is unknown), it is nevertheless useful to examine changes in vocational education in light of changes in the labor market.

Figure 3 presents the percentage change in the number of jobs in specific occupations between 1983 and 1996; the vertical line represents the average percentage change for all occupations during this time period. At least some of the change in student concentration in specific vocational areas appears to coincide with these changes in occupational employment. As noted above, child care and education, health care, food service and hospitality, and technology and communications were vocational areas in which the percentage of students concentrating was higher in 1998 than in 1982. Consistent with these changes, the occupational groupings of child care workers and teacher aides; health service occupations; food preparation and service occupations, and technicians and related support occupations experienced higher than average growth rates between 1983 and 1996.

Further, the two vocational areas that largely account for the overall decline in the percentage of students concentrating in vocational education—trade and industry and business—roughly correspond to precision production, craft, and repair, and secretaries and typists, both of which experienced below-average growth rates between 1983 and 1996.

In the two remaining vocational areas, the link to the labor market is not as apparent. The percentage of students concentrating in marketing and distribution was statistically no different in 1998 than in 1982, while marketing and sales occupations grew at a higher than average rate between 1983 and 1996. About the same percentage of students concentrated in agriculture and renewable resources in 1998 as 1982, although agriculture, forestry, fishing, and related occupations showed no growth (a relative decline) between 1983 and 1996. This broad occupational group, however, consists of farmers and other farm occupations, which made up about half of agriculture, forestry, fishing, and related occupations in 1996, as well as a variety of other occupations, such as veterinary assistants and gardening workers. While farmers and farm occupations have declined over the past two decades, other occupations in this group have generally experienced average growth or better (not shown in figures). Thus, to the degree that courses in agriculture and renewable resources are relevant to occupations related to agriculture but not necessarily farming, enrollment trends may be consistent with occupational trends, remaining at roughly stable levels.

Conclusion

The decline in vocational coursertaking from 1982 to 1998 is relatively small compared to increases in academic coursertaking. The potential trade-off between academic and vocational coursertaking seems to have been mitigated by students taking more courses overall and fewer courses in the "general" curriculum. Further, the decline in vocational concentration is due primarily to declines in the trade and industry and business program areas. These vocational areas roughly correspond to occupations that have experienced below-average growth rates since the early 1980s. In addition, the four vocational program areas in which a larger proportion of students concentrated in 1998 than in 1982 prepare students for occupations that have experienced above-average growth rates. These findings suggest that changes in vocational coursertaking may at least in part reflect responses to labor market trends.
Figure 3.—Percentage change from 1983 to 1996 in number of jobs, by occupational grouping

<table>
<thead>
<tr>
<th>Percent Change</th>
<th>Total, all occupations</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>70</td>
<td>80</td>
</tr>
</tbody>
</table>

This analysis does not examine the protective services vocational program area because less than 0.1 percent of students concentrated in this area in 1982 and 1998.


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